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BEHAVIORAL FEATURES OF BUKHARA DEER (*Cervus Elaphus Bactrianus*) DURING THE RUT

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ANNOTATION

The article discusses the behavioral characteristics of the Bukhara deer during the rut. Bukhara deer is one of the subspecies of red deer, adapted to living in desert conditions. It belongs to the deer family, artiodactyl order. Bukhara deer are characterized by an order of alternation between the rutting and molting periods that is not typical for other subspecies, the formation of true currents, specific characteristics of acoustic signals, etc.

KEY WORDS: signal, roar, subspecies, squad, harem, cry, mating season, mating group.

Bukhara or tugai deer (*Cervus elaphus bactrianus*) is a subspecies of red deer that lives in Central Asia. Bukhara deer is one of the subspecies of red deer, adapted to living in desert conditions. It belongs to the deer family, artiodactyl order.

The body height of the Bukhara deer is 120 cm at the withers. Branched antlers adorn male deer only until spring (March-April). The length of the horns reaches 110 cm, with 5 branches. Females are hornless. The body weight of deer is about 200 kg. The body color is light ash with a brownish-yellow-gray tint; brighter in summer than in winter. The legs are much lighter than the main color. The spot under the tail, called the "Mirror", is reddish in its upper part and white below. Newborn fawns are light in color, with scattered small round spots on their sides. The height of babies is up to 60 cm at the withers. The body weight of newborns is about 9 kg [2].

The main habitats of the Bukhara deer are reed thickets and tugai forests located in the floodplains of desert rivers. Sometimes deer enter the saxaul thickets along the outskirts of the Kyzylkum desert. A prerequisite for the habitat of tugai deer is the presence of watering places. It turned out in the course of many years of research that Bukhara deer are characterized not only by specific morphology, but also by behavior, communication, certain physiological characteristics, in particular, the order of alternation of the rutting and molting periods, which is not typical for other subspecies, the formation of real currents, not typical for other subspecies, specific characteristics of acoustic signals, etc. This specificity of the Bukhara deer makes its preservation and restoration in its natural habitat especially important [5].

In Bukhara deer, sexual maturity occurs at the age of 1.5-2.5 years. In ungulates, the rut begins in the fall and lasts from August to mid-October. During the mating season, male Bukhara deer emit loud calls that can be heard at a distance of several kilometers. These screams are usually called roars. It is believed that mating calls stimulate the development of estrus in females and make it easier for them to find males. There is also an opinion that the roar reduces the number of fights between males, replacing them with a demonstration of the strength of rivals through acoustic rituals. The sound activity of deer during the mating season confirms that this form of behavior is under hormonal control. Males roar at dawn, which is how they announce the beginning of the mating season. The roar lasts about a month, but the massive roar usually lasts 5-10 days [4].

The roar of deer occurs in September, when the male collects harems of 2-3, less often 4-5 females. At this time, males demonstrate their strength by butting bushes and trees with their horns, rolling around in mud "baths," "picking" the ground with their horns and hooves, fighting with other males, and courting females. And most importantly, the dominant male roars loudly. The roar of deer is a series of abrupt and hoarse sounds, turning into a low and drawn-out moo. The early or late periods of roaring of the Bukhara deer depend on the weather and food conditions, as well as the fatness of the males [1].



During the rut, adult males (4-5 years old) lose caution, begin to intensively pursue females and often roar. During the rutting period, fights between males are possible, thanks to which the animals establish primacy. The first stage - male rivals roar at each other, the males who roar longer and deeper are the strongest. These roaring duels can last for several hours, an indication of how strong the opponent is. There is no point in the male continuing to fight if it is obvious that he is weaker than the dominant animal. If after the first stage the winner is not determined, then the males will fight with their horns. The rivals clash their horns, trying to knock each other down. Weaker males quickly leave the battlefield. Fights extremely rarely end tragically, although there have been cases when males broke their horns, or were so intertwined with them that they could not disentangle themselves and simply died of hunger. Among the males there are hornless individuals - they do not participate in fights, but try to quietly get into someone else's harem [3].

As a rule, the herd of Bukhara deer is headed by an old, experienced female. At the same time, the herd contains offspring of different ages, and their number is at least 6 individuals. With the onset of autumn, the mating season of ungulates begins and the herd breaks up. At the beginning of the mating season, females stay in groups separately from males. During the rutting season, males invade groups of females, thus forming harems. Under normal conditions, at least ten deer of different sexes and ages are involved in the mating season, implementing mating behavior over an area of 10-15 km². In this territory, there is a center of social activity - a lek, where mating groups are formed. Here you can record traces of deer activity, for example, scratches in trees, areas of dislodged earth [4].

In Bukhara deer, during the rutting period, a territorial distribution is clearly established among males, subordinate to the hierarchical structure of the herd. The establishment of such hierarchical structures sometimes leads to the cessation of fighting. They can be replaced by ritual movements of ungulates, where it is possible to save strength in the dominant and subordinate deer.

Thus, the behavioral characteristics of Bukhara deer during the rut are characterized by mating calls, the formation of a lek, the formation of mating groups and harems, as well as the establishment of territorial distributions subordinate to the hierarchical structure of the herd.

LITERATURE

1. Amirov Z.G. State of the population of Bukhara deer (*Cervus elaphus bactrianus lydekker, 1900*) in Tajikistan // Reports of the Academy of Sciences of the Republic of Tajikistan 2012, volume 55, No. 10 P.827-832
2. Berdambetova B.P. Bioecological features of the Bukhara deer (*Cervus elaphus bactrianus*) in the conditions of the Southern Arlie region // Theory and practice of modern science" No. 6(72) 2021 P.62-64.
3. Red deer // <https://ru.wikipedia.org/>
4. Nikolsky A.A. Sound signals of mammals in the evolutionary process. - M.: Nauka, 1984
5. Seitvelieva S.S., Daminov A.S. Parasitological aspects influencing the increase in the Bukhara deer population // Problems of biology and medicine 2023, No. 3.1 (145). - P. 358-362